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Nata

LumCAT: 1496-S
Luminaire: 92.70.064.00
Report No: 220526-B011
Test No: 220526-C011
LampCAT: Samsung Samsung LED LCO6D3
Lamp flux(lm): 1605.2
Number of Lamps: 1
Length(mm): 43
Phm Type: C

Voltage(V): 35.4600
Current(A): 0.3810
Power (W): 13.5100
PF: 0.0000
Ballast type: DC
Width(mm): 43
Height(mm): 0

Photometric Results

Lumens(lm): 1298.52
Efficiency(%): 80.89%
Lumens(lm)/Power(W): 96.12
Central intensity(cd): 5314.871
Maximum intensity(cd): 5314.871
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=22.7
 [C90/270]Total=22.7
Field angle(10%Imax): [C0/180]Total=53.3
 [C90/270]Total=53.3
Maximum s/h(1/2): C0_180=0.38 C90_270=0.38
Maximum s/h(1/4): C0_180=0.44 C90_270=0.44
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 80.89%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.113%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5314.871	0.000	0	.000%	.000%
1.0	5281.484	5.070	5.07	.316%	.390%
2.0	5157.870	14.984	20.054	.933%	1.544%
3.0	4964.644	24.210	44.263	1.508%	3.409%
4.0	4734.820	32.467	76.731	2.023%	5.909%
5.0	4460.031	39.556	116.286	2.464%	8.955%
6.0	4184.794	45.431	161.717	2.830%	12.454%
7.0	3863.324	49.955	211.672	3.112%	16.301%
8.0	3576.585	53.246	264.918	3.317%	20.401%
9.0	3282.600	55.590	320.508	3.463%	24.682%
10.0	2990.857	56.772	377.28	3.537%	29.055%
11.0	2739.745	57.260	434.541	3.567%	33.464%
12.0	2505.514	57.338	491.879	3.572%	37.880%
13.0	2269.042	56.662	548.541	3.530%	42.243%
14.0	2059.160	55.401	603.941	3.451%	46.510%
15.0	1877.063	54.038	657.98	3.366%	50.671%
16.0	1695.339	52.346	710.325	3.261%	54.703%
17.0	1539.907	50.381	760.707	3.139%	58.582%
18.0	1382.174	48.179	808.886	3.001%	62.293%
19.0	1254.176	45.867	854.753	2.857%	65.825%
20.0	1131.010	43.656	898.408	2.720%	69.187%
21.0	1028.549	41.468	939.876	2.583%	72.380%
22.0	927.253	39.303	979.179	2.448%	75.407%
23.0	829.400	36.859	1016.038	2.296%	78.246%
24.0	748.741	34.504	1050.542	2.149%	80.903%
25.0	662.189	32.081	1082.623	1.999%	83.373%
26.0	583.061	29.394	1112.018	1.831%	85.637%
27.0	506.264	26.651	1138.668	1.660%	87.689%
28.0	428.600	23.669	1162.337	1.474%	89.512%
29.0	354.999	20.501	1182.838	1.277%	91.091%
30.0	300.863	17.708	1200.546	1.103%	92.455%
31.0	231.147	14.805	1215.352	.922%	93.595%
32.0	176.555	11.680	1227.032	.728%	94.494%
33.0	128.887	8.998	1236.03	.561%	95.187%
34.0	85.723	6.495	1242.525	.405%	95.687%
35.0	60.268	4.534	1247.059	.282%	96.037%
36.0	42.492	3.272	1250.331	.204%	96.289%
37.0	32.267	2.438	1252.769	.152%	96.476%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	25.051	1.913	1254.682	.119%	96.624%
39.0	18.762	1.495	1256.178	.093%	96.739%
40.0	15.140	1.182	1257.36	.074%	96.830%
41.0	13.668	1.026	1258.386	.064%	96.909%
42.0	12.787	0.961	1259.347	.060%	96.983%
43.0	11.958	0.917	1260.264	.057%	97.054%
44.0	11.375	0.881	1261.144	.055%	97.121%
45.0	10.875	0.855	1261.999	.053%	97.187%
46.0	10.472	0.835	1262.834	.052%	97.252%
47.0	10.173	0.821	1263.655	.051%	97.315%
48.0	9.904	0.812	1264.467	.051%	97.377%
49.0	9.650	0.803	1265.27	.050%	97.439%
50.0	9.441	0.796	1266.066	.050%	97.500%
51.0	9.292	0.793	1266.858	.049%	97.561%
52.0	9.105	0.789	1267.648	.049%	97.622%
53.0	9.000	0.788	1268.435	.049%	97.683%
54.0	8.881	0.788	1269.224	.049%	97.744%
55.0	8.799	0.789	1270.013	.049%	97.804%
56.0	8.724	0.792	1270.805	.049%	97.865%
57.0	8.687	0.796	1271.601	.050%	97.927%
58.0	8.627	0.801	1272.401	.050%	97.988%
59.0	8.589	0.805	1273.206	.050%	98.050%
60.0	8.552	0.810	1274.016	.050%	98.113%
61.0	8.552	0.816	1274.832	.051%	98.175%
62.0	8.537	0.823	1275.656	.051%	98.239%
63.0	8.507	0.829	1276.485	.052%	98.303%
64.0	8.537	0.836	1277.321	.052%	98.367%
65.0	8.522	0.844	1278.165	.053%	98.432%
66.0	8.507	0.850	1279.015	.053%	98.498%
67.0	8.485	0.854	1279.869	.053%	98.563%
68.0	8.477	0.859	1280.729	.054%	98.630%
69.0	8.485	0.865	1281.594	.054%	98.696%
70.0	8.440	0.869	1282.463	.054%	98.763%
71.0	8.410	0.871	1283.334	.054%	98.830%
72.0	8.350	0.872	1284.206	.054%	98.897%
73.0	8.328	0.872	1285.078	.054%	98.964%
74.0	8.328	0.876	1285.953	.055%	99.032%
75.0	8.261	0.876	1286.83	.055%	99.099%

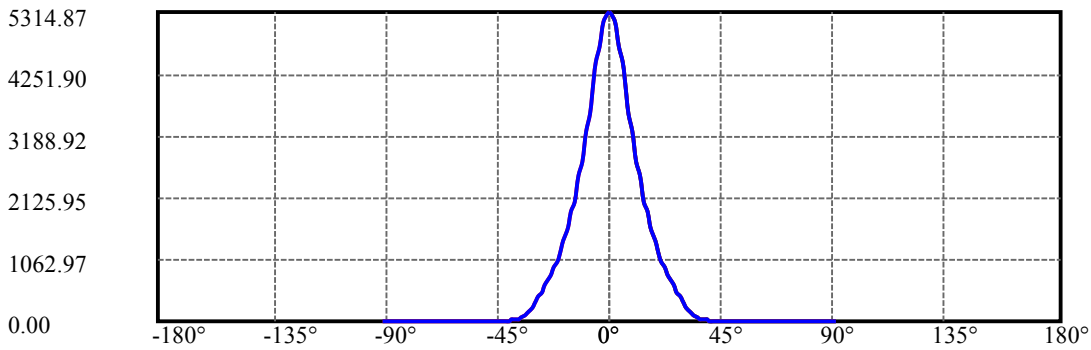
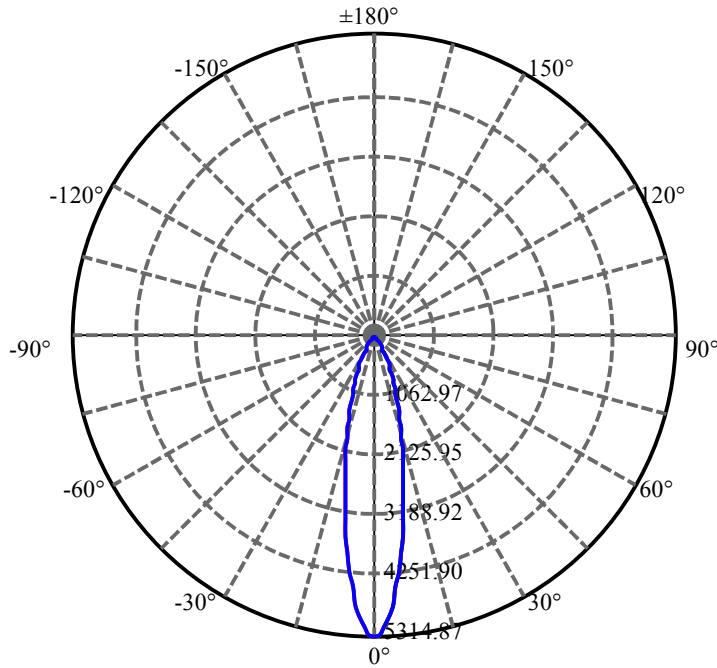
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	8.186	0.873	1287.703	.054%	99.167%
77.0	8.134	0.870	1288.573	.054%	99.234%
78.0	8.082	0.868	1289.441	.054%	99.301%
79.0	8.037	0.866	1290.307	.054%	99.367%
80.0	7.955	0.862	1291.169	.054%	99.434%
81.0	7.843	0.854	1292.024	.053%	99.499%
82.0	7.686	0.842	1292.866	.052%	99.564%
83.0	7.604	0.831	1293.697	.052%	99.628%
84.0	7.163	0.804	1294.501	.050%	99.690%
85.0	6.685	0.756	1295.257	.047%	99.748%
86.0	6.394	0.715	1295.972	.045%	99.803%
87.0	5.841	0.670	1296.641	.042%	99.855%
88.0	5.759	0.635	1297.277	.040%	99.904%
89.0	5.684	0.627	1297.904	.039%	99.952%
90.0	5.624	0.620	1298.524	.039%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1200.55	74.79%	92.45%
0-40	1257.36	78.33%	96.83%
0-60	1274.02	79.37%	98.11%
0-90	1297.90	80.86%	99.95%
0-120	1297.90	80.86%	99.95%
0-180	1298.52	80.89%	100.00%
60-90	24.70	1.54%	1.90%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-23.66	1038.82	64.72%	80.00%

ZONAL LUMEN SUMMARY

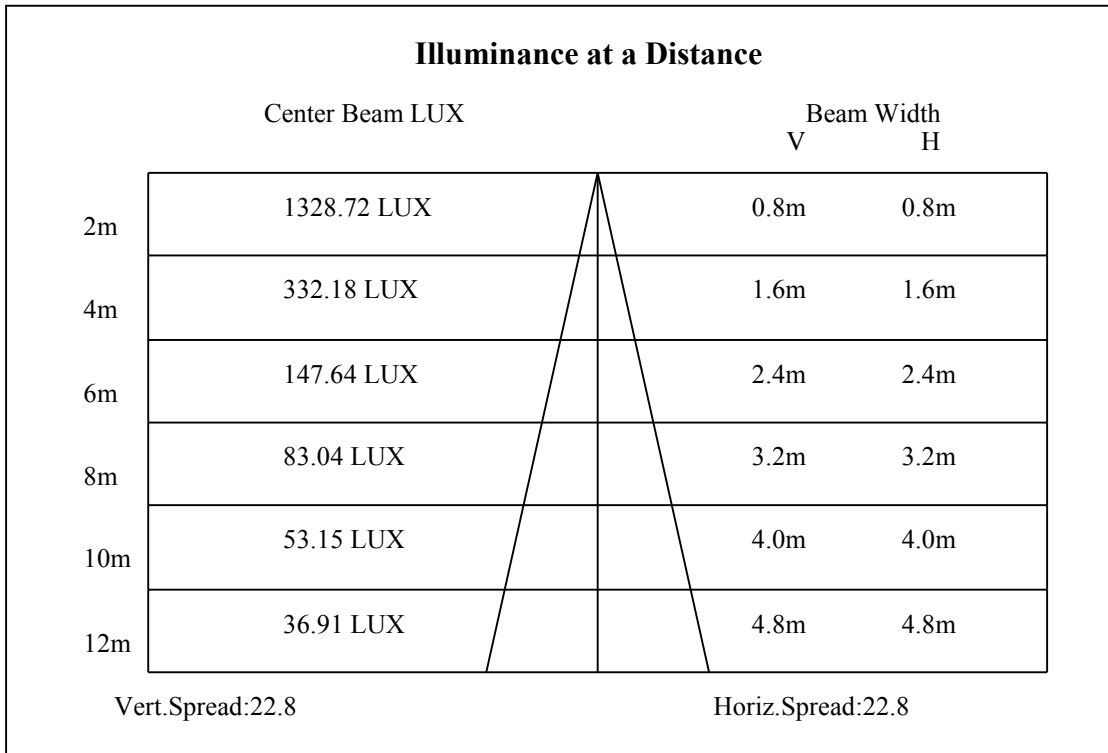
0-10	377.28
10-20	521.13
20-30	302.14
30-40	56.81
40-50	8.71
50-60	7.95
60-70	8.45
70-80	8.71
80-90	6.73
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

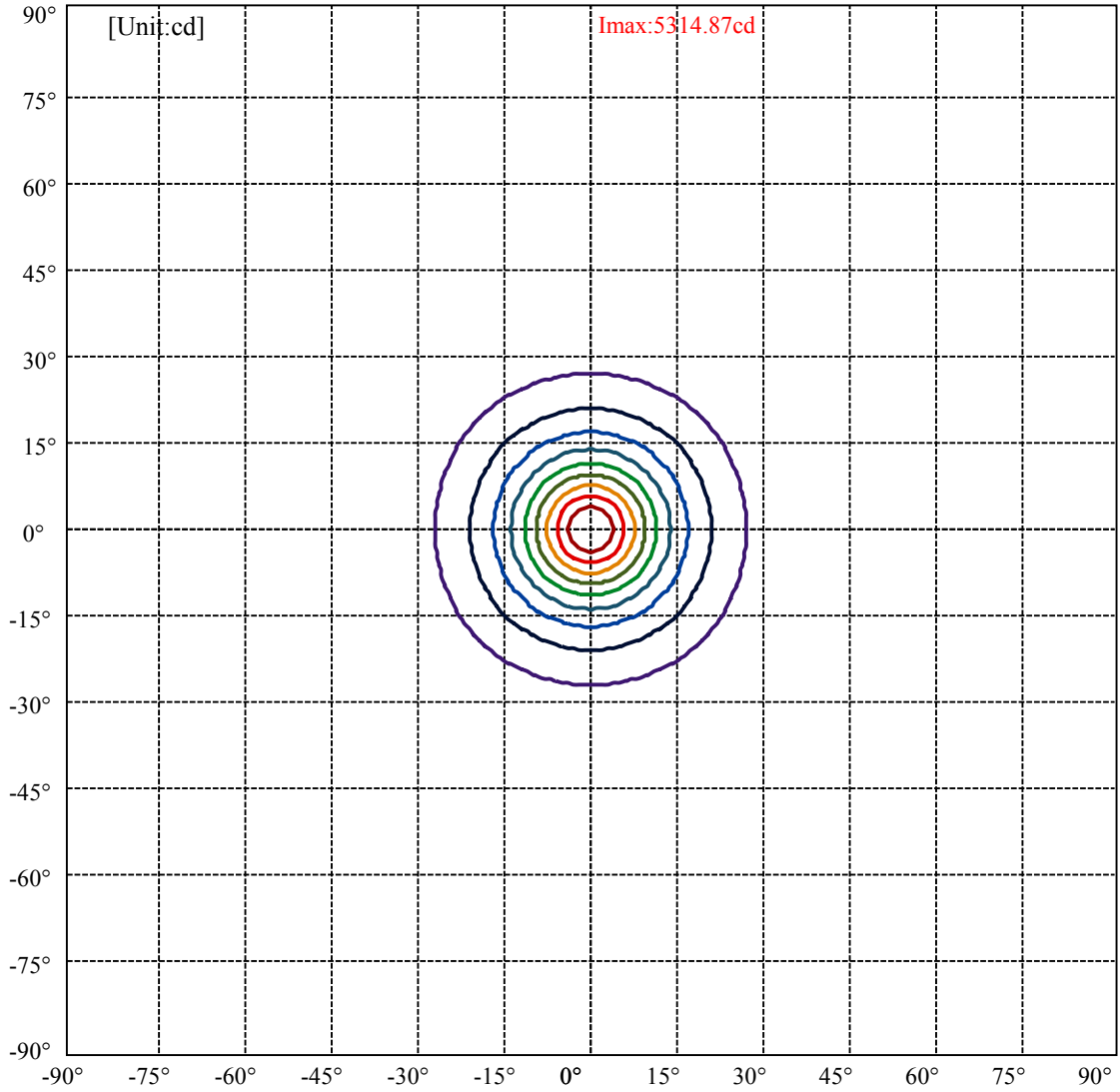


C0(Max): ———
C0/C180: ———
C90/C270: ———

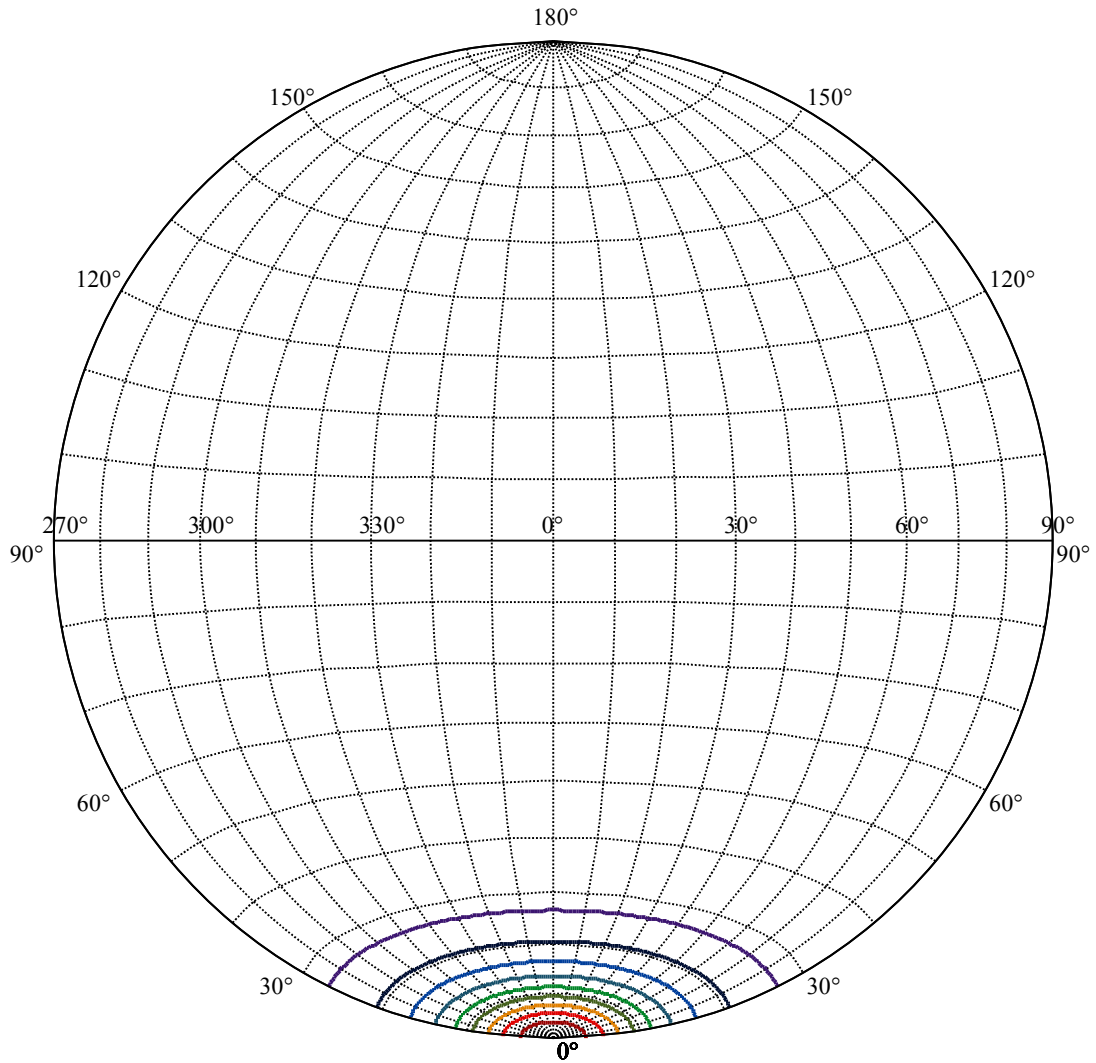
Field angle(10%Imax):C0/180Left:26.7 Right:26.7
:C90/270Left:26.7 Right:26.7

Beam Angle(50%Imax):C0/180Left:11.4 Right:11.4
:C90/270Left:11.4 Right:11.4





(10%Imax) 531.487	—
(20%Imax) 1062.97	—
(30%Imax) 1594.46	—
(40%Imax) 2125.95	—
(50%Imax) 2657.44	—
(60%Imax) 3188.92	—
(70%Imax) 3720.41	—
(80%Imax) 4251.9	—
(90%Imax) 4783.38	—



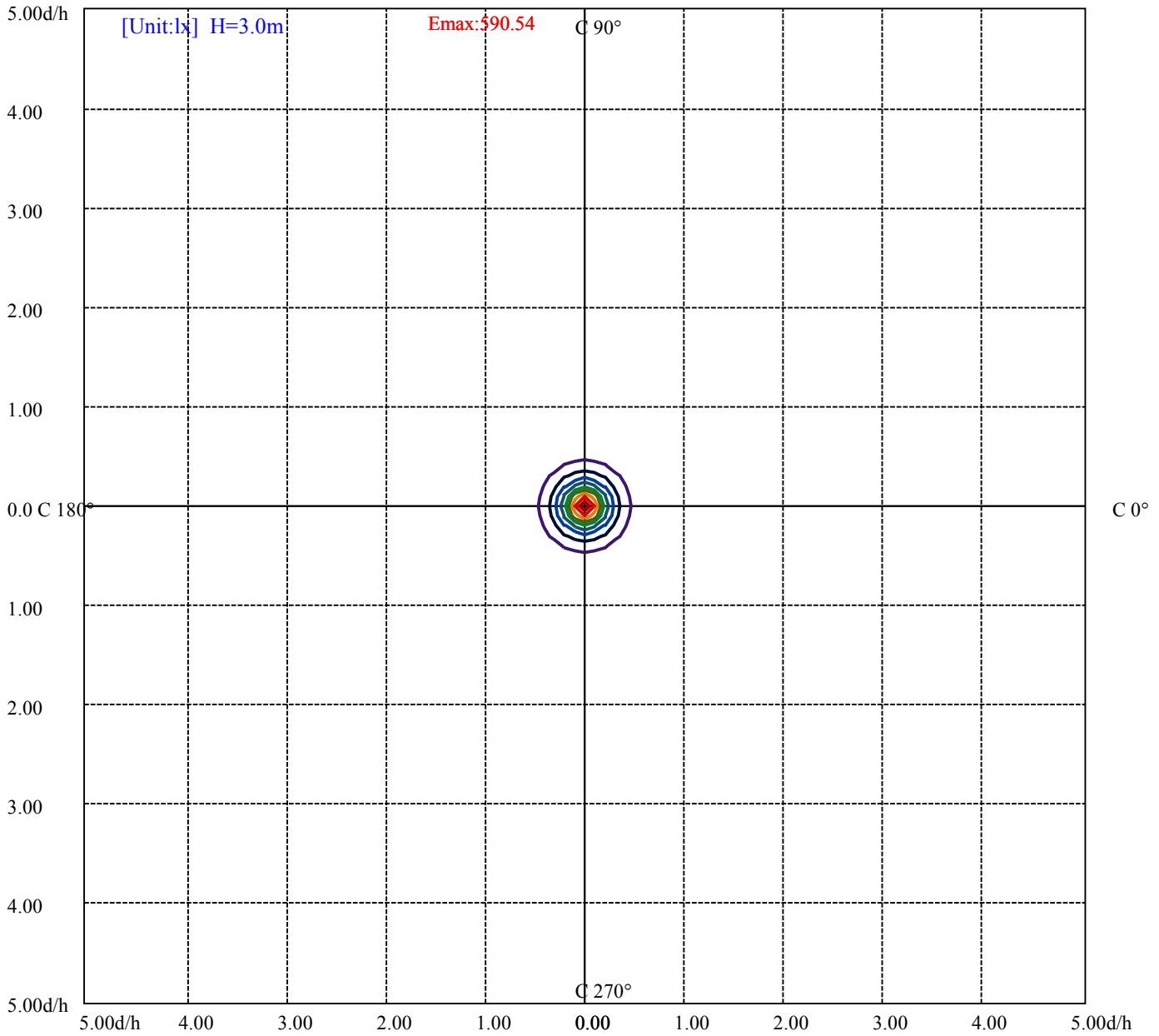
House

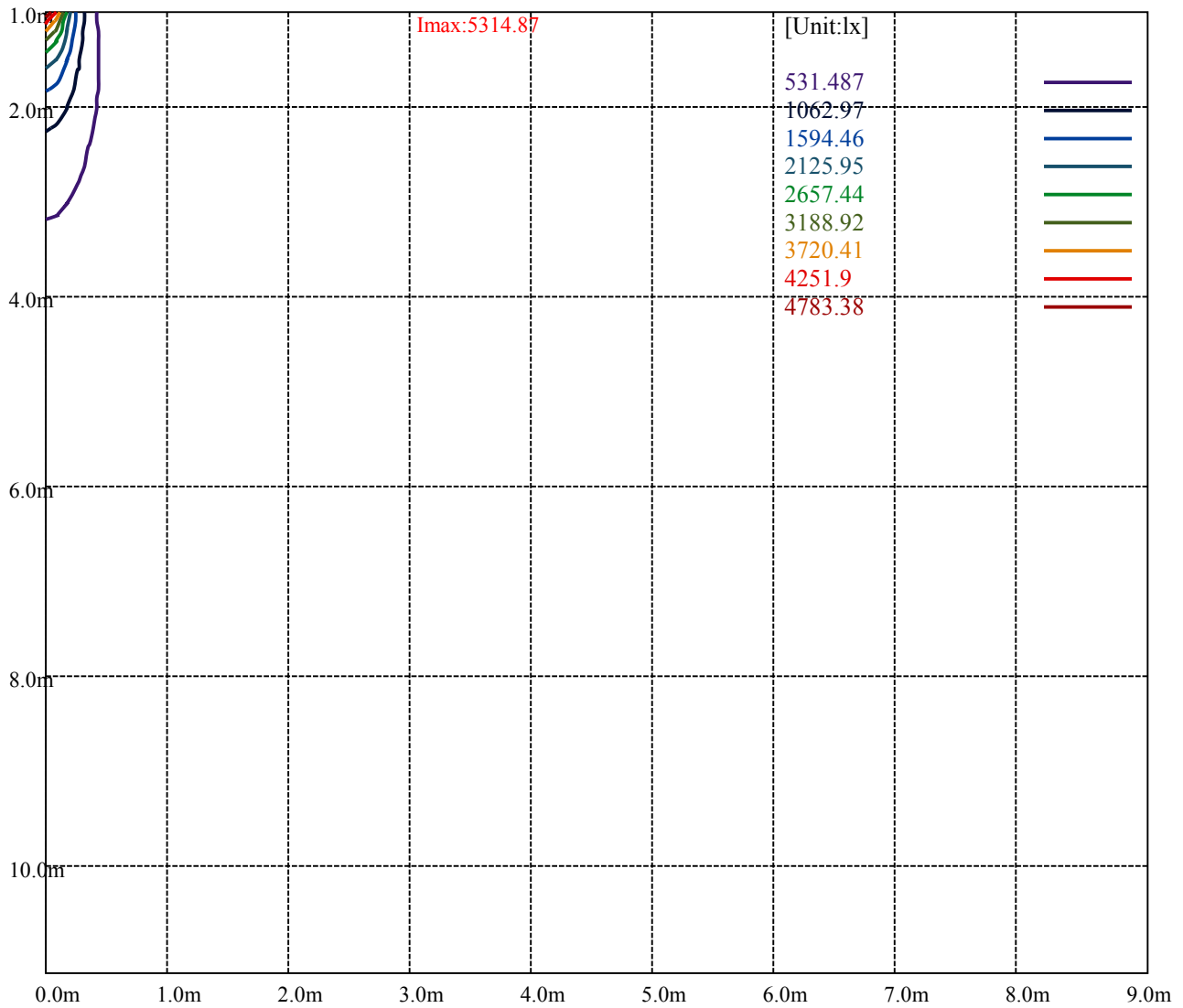
[Unit:cd]

Road

Imax:5314.87

(10%Imax) 531.487	—
(20%Imax) 1062.97	—
(30%Imax) 1594.46	—
(40%Imax) 2125.95	—
(50%Imax) 2657.44	—
(60%Imax) 3188.92	—
(70%Imax) 3720.41	—
(80%Imax) 4251.9	—
(90%Imax) 4783.38	—





Luminance Table

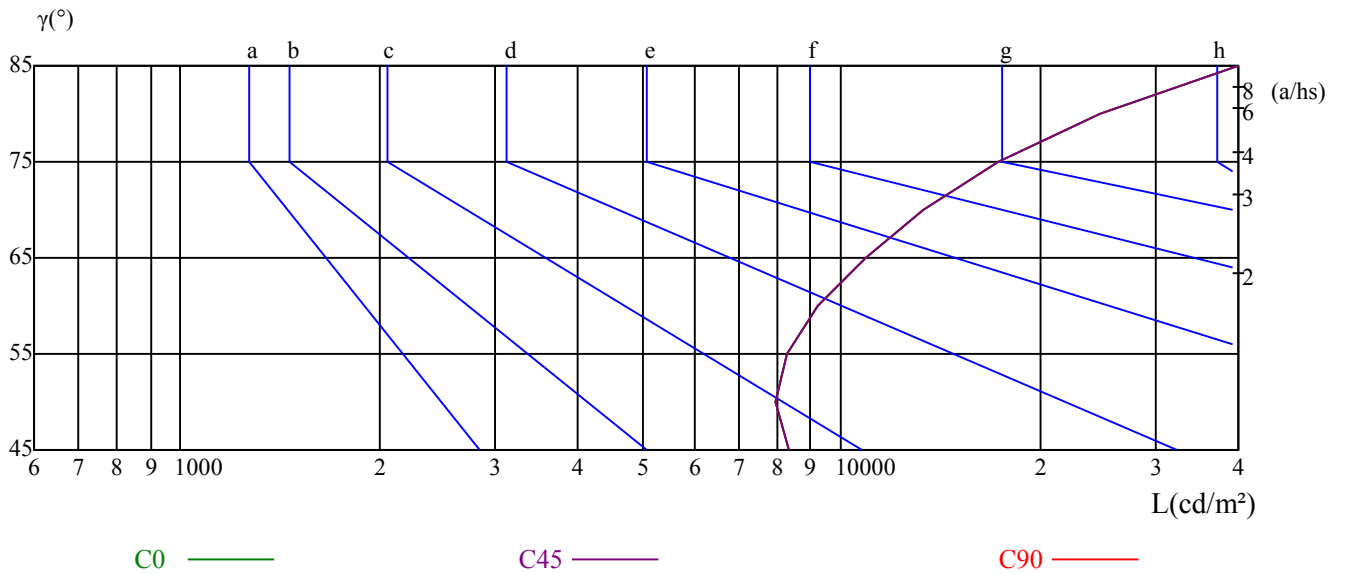
γ	45	50	55	60	65	70	75	80	85
C0	8318	7943	8296	9251	10906	13346	17262	24775	41482
C45	8318	7943	8296	9251	10906	13346	17262	24775	41482
C90	8318	7943	8296	9251	10906	13346	17262	24775	41482

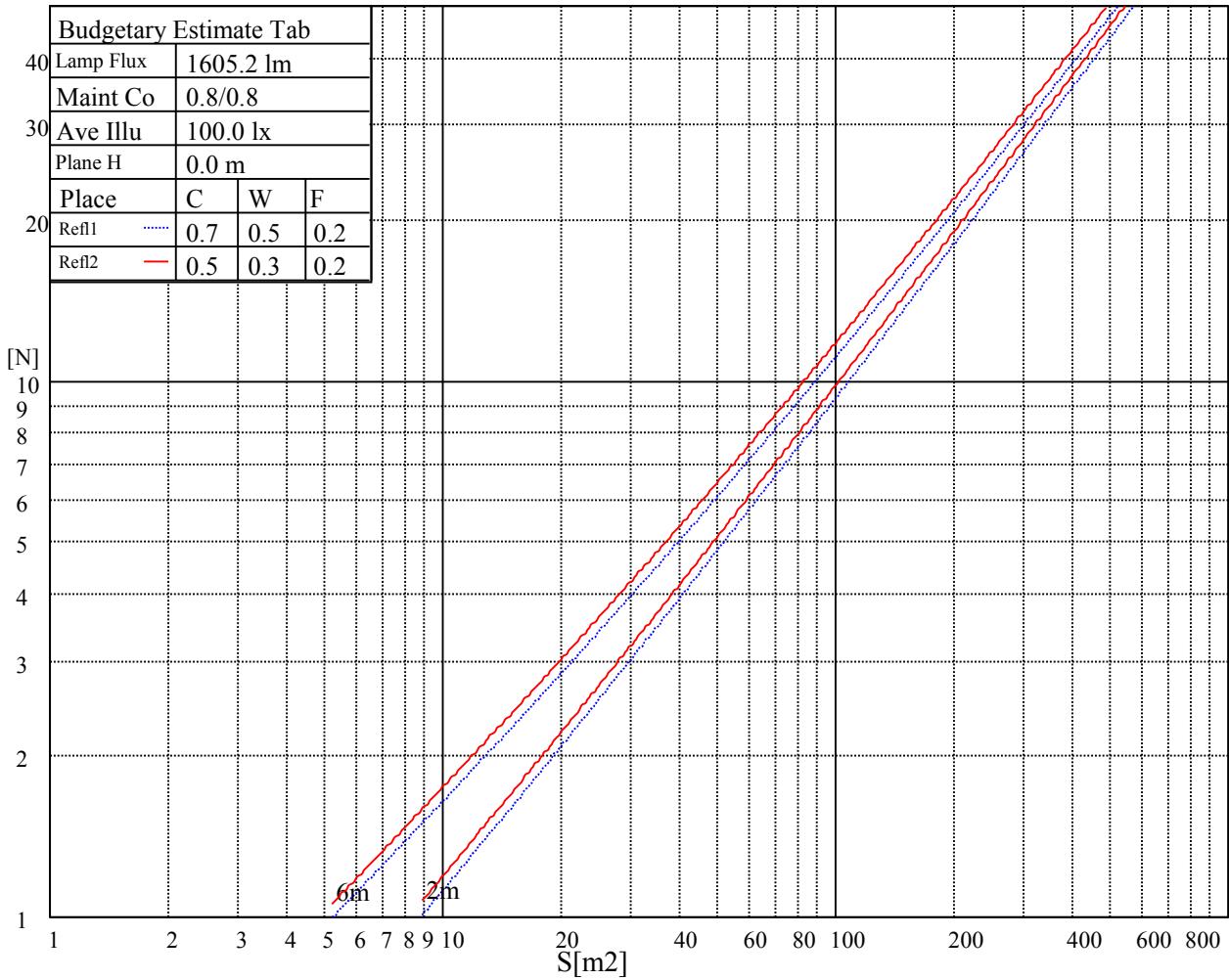
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
10906	10906	10906	17262	17262	17262	41482	41482	41482

Glare Table

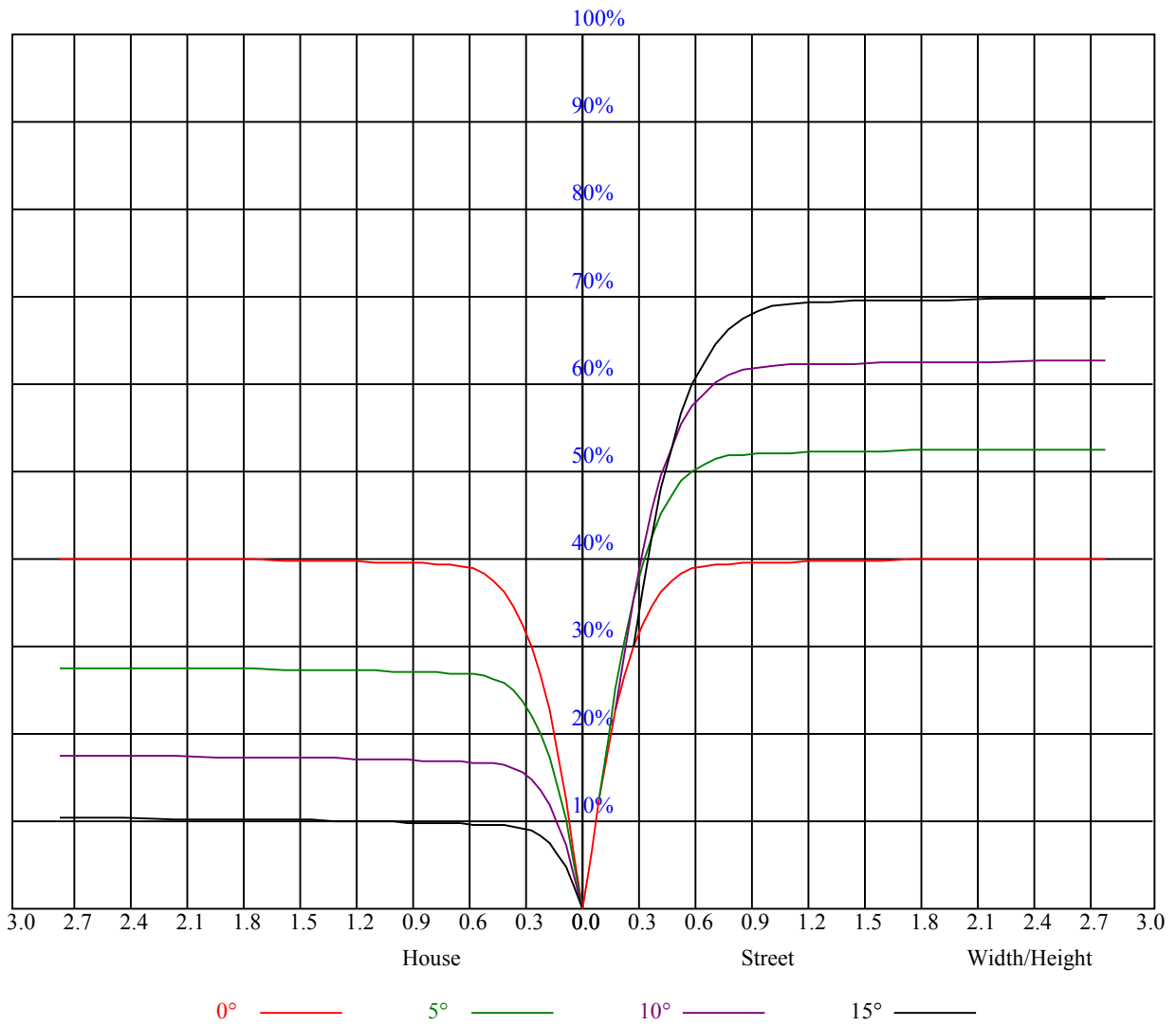
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	0.96	0.96	0.96	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.83	0.83	0.83	0.81
1	0.91	0.89	0.87	0.89	0.87	0.86	0.86	0.84	0.83	0.83	0.82	0.81	0.80	0.79	0.78	0.77
2	0.86	0.83	0.81	0.84	0.82	0.80	0.82	0.80	0.78	0.79	0.78	0.76	0.77	0.76	0.75	0.74
3	0.82	0.78	0.76	0.81	0.78	0.75	0.78	0.76	0.74	0.77	0.75	0.73	0.75	0.73	0.72	0.71
4	0.78	0.74	0.72	0.77	0.74	0.71	0.75	0.73	0.70	0.74	0.72	0.70	0.73	0.71	0.69	0.68
5	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.67	0.71	0.69	0.67	0.70	0.68	0.66	0.65
6	0.72	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.65	0.69	0.66	0.64	0.68	0.66	0.64	0.63
7	0.69	0.65	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.67	0.64	0.62	0.66	0.64	0.62	0.61
8	0.67	0.63	0.60	0.66	0.63	0.60	0.65	0.62	0.60	0.65	0.62	0.60	0.64	0.62	0.60	0.59
9	0.64	0.61	0.58	0.64	0.61	0.58	0.63	0.60	0.58	0.63	0.60	0.58	0.62	0.60	0.58	0.57
10	0.62	0.59	0.56	0.62	0.59	0.56	0.61	0.58	0.56	0.61	0.58	0.56	0.60	0.58	0.56	0.55



Intensity data(cd)

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	5254.67	5356.25	5359.24	5306.66	5132.77	4901.53	4631.45	4360.77	4089.49
45.0	5340.71	5321.00	5181.17	4979.21	4774.26	4459.36	4182.70	3892.30	3579.20
90.0	5321.00	5234.95	5044.94	4798.16	4566.91	4277.11	4000.46	3632.98	3352.74
135.0	5343.10	5243.91	5041.35	4812.50	4556.76	4263.97	3947.28	3664.05	3396.95
180.0	5254.67	5049.72	4848.35	4580.66	4273.53	3995.68	3711.25	3365.88	3105.36
225.0	5340.71	5337.13	5202.69	4976.22	4756.33	4479.67	4207.80	3886.93	3566.05
270.0	5321.00	5351.47	5304.86	5152.49	4930.81	4667.90	4425.30	4078.73	3788.93
315.0	5343.10	5357.45	5280.36	5111.26	4887.19	4635.03	4372.12	4024.96	3733.96
360.0	5254.67	5356.25	5359.24	5306.66	5132.77	4901.53	4631.45	4360.77	4089.49
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3738.74	3470.45	3202.76	2932.67	2682.91	2469.59	2249.10	2036.38	1864.89
45.0	3263.11	2985.25	2714.57	2482.14	2236.55	2021.44	1843.97	1664.72	1498.01
90.0	3074.88	2765.96	2526.35	2302.88	2068.65	1855.33	1688.62	1519.52	1373.12
135.0	3059.95	2814.96	2585.51	2337.53	2118.84	1936.59	1751.96	1588.23	1451.40
180.0	2861.57	2583.12	2379.36	2184.57	1983.80	1797.37	1649.78	1490.83	1359.38
225.0	3286.41	2993.62	2715.77	2487.51	2271.21	2031.00	1855.33	1689.81	1523.70
270.0	3515.86	3177.06	2908.77	2669.16	2384.74	2182.77	1982.60	1765.70	1604.37
315.0	3460.29	3136.43	2884.87	2647.65	2405.65	2179.19	1995.15	1807.53	1644.40
360.0	3738.74	3470.45	3202.76	2932.67	2682.91	2469.59	2249.10	2036.38	1864.89
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1682.04	1542.82	1398.22	1263.18	1150.24	1031.34	922.58	835.94	754.68
45.0	1359.98	1240.47	1100.05	998.47	906.45	797.70	728.99	655.49	571.24
90.0	1185.56	1099.63	997.99	886.85	792.62	710.40	638.76	551.88	483.34
135.0	1307.39	1203.42	1073.76	982.34	879.56	784.56	711.66	618.44	540.17
180.0	1190.94	1097.24	995.12	889.66	798.48	717.27	635.35	543.21	467.27
225.0	1381.49	1192.01	1126.34	1026.14	935.25	835.35	760.65	679.63	593.53
270.0	1457.37	1309.78	1176.53	1066.59	953.06	848.49	764.24	681.18	603.50
315.0	1492.63	1348.03	1180.06	1115.17	1002.35	910.10	827.70	731.73	650.77
360.0	1682.04	1542.82	1398.22	1263.18	1150.24	1031.34	922.58	835.94	754.68
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	647.72	571.24	488.78	415.88	335.81	305.34	219.95	158.82	114.19
45.0	499.53	429.03	349.55	301.75	223.18	167.85	117.59	75.11	51.69
90.0	417.91	342.44	273.19	219.71	165.52	120.64	85.57	53.96	40.21
135.0	459.50	387.20	315.50	308.92	195.27	138.15	103.91	55.93	39.32
180.0	401.78	330.19	255.56	202.92	152.31	97.58	62.26	41.53	32.33
225.0	525.17	442.53	362.64	296.02	237.88	170.24	122.91	86.22	54.79
270.0	524.03	446.35	381.22	317.89	268.59	195.63	149.50	100.86	68.78
315.0	574.46	479.82	413.55	343.82	270.62	217.02	169.40	113.35	80.85
360.0	647.72	571.24	488.78	415.88	335.81	305.34	219.95	158.82	114.19
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	77.08	49.06	36.87	30.23	19.24	14.52	13.38	12.37	11.59
45.0	34.84	29.46	24.08	15.18	13.98	13.09	12.07	11.41	10.88
90.0	30.95	26.83	19.30	16.73	15.24	14.10	13.32	12.55	11.95
135.0	31.43	25.93	16.67	14.46	13.32	12.43	11.77	11.05	10.64
180.0	26.41	17.63	14.52	13.27	12.25	11.53	10.93	10.34	9.98
225.0	37.17	31.67	24.74	15.60	14.40	13.27	12.49	11.65	11.05
270.0	49.42	38.30	31.19	22.77	17.51	16.19	15.06	14.16	13.44
315.0	52.64	39.26	33.04	21.87	15.18	14.22	13.27	12.13	11.47
360.0	77.08	49.06	36.87	30.23	19.24	14.52	13.38	12.37	11.59

Intensity data(cd)

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	10.88	10.34	9.92	9.68	9.38	9.26	9.14	8.96	8.90
45.0	10.28	9.92	9.68	9.38	9.14	8.96	8.84	8.66	8.60
90.0	11.53	11.11	10.82	10.46	10.16	9.86	9.68	9.44	9.26
135.0	10.28	9.98	9.80	9.62	9.38	9.20	9.02	8.90	8.84
180.0	9.80	9.62	9.50	9.32	9.26	9.08	9.02	8.90	8.90
225.0	10.52	10.10	9.74	9.44	9.26	9.08	9.02	8.90	8.84
270.0	12.79	12.31	11.89	11.53	11.05	10.76	10.46	10.04	9.74
315.0	10.93	10.40	10.04	9.80	9.56	9.32	9.14	9.02	8.90
360.0	10.88	10.34	9.92	9.68	9.38	9.26	9.14	8.96	8.90
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	8.84	8.84	8.72	8.72	8.66	8.66	8.60	8.60	8.60
45.0	8.48	8.48	8.43	8.37	8.31	8.31	8.31	8.31	8.31
90.0	9.08	8.96	8.84	8.84	8.78	8.72	8.66	8.66	8.66
135.0	8.78	8.66	8.60	8.54	8.54	8.48	8.43	8.43	8.43
180.0	8.78	8.72	8.72	8.72	8.72	8.72	8.72	8.78	8.78
225.0	8.78	8.72	8.66	8.66	8.54	8.48	8.48	8.48	8.48
270.0	9.50	9.26	9.08	8.96	8.90	8.84	8.78	8.72	8.66
315.0	8.78	8.72	8.72	8.66	8.54	8.48	8.43	8.43	8.37
360.0	8.84	8.84	8.72	8.72	8.66	8.66	8.60	8.60	8.60
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	8.60	8.72	8.72	8.72	8.72	8.66	8.66	8.66	8.66
45.0	8.31	8.31	8.31	8.31	8.31	8.31	8.31	8.25	8.25
90.0	8.54	8.54	8.48	8.43	8.31	8.37	8.37	8.31	8.19
135.0	8.43	8.43	8.43	8.43	8.43	8.43	8.43	8.43	8.37
180.0	8.72	8.78	8.78	8.78	8.78	8.78	8.78	8.72	8.66
225.0	8.48	8.54	8.54	8.54	8.54	8.48	8.48	8.43	8.43
270.0	8.66	8.60	8.54	8.54	8.48	8.43	8.48	8.37	8.43
315.0	8.31	8.37	8.37	8.31	8.31	8.37	8.37	8.37	8.31
360.0	8.60	8.72	8.72	8.72	8.72	8.66	8.66	8.66	8.66
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	8.54	8.54	8.54	8.48	8.43	8.43	8.37	8.31	8.31
45.0	8.25	8.19	8.19	8.19	8.13	8.07	8.01	7.95	7.89
90.0	8.07	8.13	8.25	8.07	7.71	7.65	7.65	7.83	7.77
135.0	8.31	8.19	8.13	8.07	8.01	7.95	7.89	7.77	7.71
180.0	8.60	8.60	8.54	8.48	8.48	8.37	8.31	8.25	8.01
225.0	8.43	8.43	8.43	8.37	8.37	8.31	8.25	8.13	8.07
270.0	8.37	8.37	8.43	8.37	8.37	8.37	8.31	8.25	8.13
315.0	8.25	8.19	8.13	8.07	8.01	7.95	7.89	7.83	7.77
360.0	8.54	8.54	8.54	8.48	8.43	8.43	8.37	8.31	8.31
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	8.25	8.07	7.95	7.77	7.59	7.29	6.21	5.98	5.92
45.0	7.77	7.65	7.59	7.53	5.98	5.86	5.80	5.74	5.68
90.0	7.59	7.41	7.35	6.21	5.86	5.74	5.68	5.62	5.62
135.0	7.65	7.53	7.41	7.11	5.86	5.80	5.74	5.74	5.62
180.0	7.83	7.59	7.47	6.09	5.92	5.86	5.80	5.74	5.56
225.0	7.95	7.83	7.77	7.65	7.53	6.04	5.86	5.80	5.74
270.0	8.01	7.83	7.77	7.53	7.47	7.35	5.80	5.68	5.68
315.0	7.71	7.59	7.53	7.41	7.29	7.23	5.86	5.80	5.68
360.0	8.25	8.07	7.95	7.77	7.59	7.29	6.21	5.98	5.92

Intensity data(cd)

C/γ(°)	90.0
0.0	5.80
45.0	5.62
90.0	5.56
135.0	5.56
180.0	5.62
225.0	5.62
270.0	5.62
315.0	5.62
360.0	5.80